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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,663	08/06/2001	William M. Ayers	901715-ETT	3905

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Indianapolis, IN 46204

EXAMINER

MAYEKAR, KISHOR

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/720,663	Applicant(s) AYERS, WILLIAM M.	
	Examiner Kishor Mayekar	Art Unit 1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-21 and 32-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-21 and 32-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 16, 37, 39 and 40 stand and new claims 41-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 16, 37, 39 and 40 are rejected for reasons as of record.

In claim 41, the phrase "to feed a precursor material" is confusing as whether the material is the same as recited earlier (the material received in the reaction chamber) or different.

In claim 44, the same is applied to claim 44 to the phrase "a precursor material".

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 11-21, 32-34 and 37-40 stand and new claims 41-44 are rejected

rejected under 35 U.S.C. 103(a) as being unpatentable over Moisan et al. (6,224,836) in view of Mutterer, Jr. et al. (6,258,329) and Warmbier et al. (5,540,886) or Lautenschlager et al. (6,033,912), for reasons as of record. As to the provision of a supply vessel as now claimed in the claims, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings because "the use of conventional materials to perform their known functions in a conventional process is obvious". In re Raner 134 USPQ 343.

As to the subject matter of claim 42 to the recited function of the reactor chamber and since there is no specific structural recited, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings because it has been held that "apparatus claims cover what a device is, not what a device does, *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525.

4. Claims 35 and 36 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Moisan '836 in view of Mutterer '329 and Warmbier '886 or

Lautenschlager '912 as applied to claims 11-21, 32-34 and 37-40 above, and further in view of Ayers (5,158,656), for reasons as of record.

Response to Arguments

5. Applicant's arguments filed 3 January 2005 have been fully considered but they are not persuasive.

In response to Applicant's argument that the rejection of claims 16, 37, 39 and 40 under the second paragraph of 35 USC 112 that a system cannot include a recitation of a precursor material or a liquid as a part of the system that will be given patentable weight, since the claims are directed to a device comprised of structures and since the precursor material being a material to be worked upon by the device, the material is not part of the structures of the device as asserted by the examiner. Part of the amended claim 16 is sound when reciting the elements of the precursor material in the Markush group since the claim is dependent upon amended claim 11 reciting the device comprising a vessel for containing a precursor material, but not when reciting "comprising a precursor material". The same is applied to the recitation of a liquid in claim 40 and the recitation of a precursor material in new claim 44.

In response to applicant's argument that the combination of references does not positively motivate the skilled artisan to do what is claimed, absent the use of hindsight by the examiner, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that not one of [the references] is directed to chemical reactor systems designed to generate gases from precursor materials, none of the references teach or suggest such combinations of elements in systems as claimed, and the ineffectual establishing of a prima facie case of obviousness, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re*

Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Further as asserted by the examiner, since Moisan teaches a device for purification of gas by microwave comprising a source of microwave radiation, a microwave transparent, gas tight barrier, a metal enclosure, a manifold, a treatment unit, a dehydration unit, and sampling cells; since Mutterer shows in a system for carrying out microwave assisted chemical reactions that the cavities and attenuator is formed of metals that reflects microwave and the provision of a control system operatively associated with sensor; and since both Warmbier and Lautenschlager shows in a device for processing gases with a microwave the use of a gas concentration sensor and a fed-back control system, the rejection stands as this would result in efficiently controlling the operation of the system on a continuous basis.

As to the argument to the rejection on claims 35 and 36, since the rejection comprises the combination of the above references, the rejection also stands.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

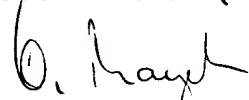
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kishor Mayekar
Primary Examiner
Art Unit 1753